



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

mt

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,289	09/24/2003	Takashi Morino	1232-5162	6546

27123 7590 02/12/2007  
MORGAN & FINNEGAN, L.L.P.  
3 WORLD FINANCIAL CENTER  
NEW YORK, NY 10281-2101

EXAMINER
----------

HUNG, YUBIN

ART UNIT	PAPER NUMBER
----------	--------------

2624

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/12/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/669,289	MORINO, TAKASHI	
	Examiner	Art Unit	
	Yubin Hung	2624	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/9/05</u> .  | 6) <input type="checkbox"/> Other: ____.                          |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The recited Japanese Search Report dated 04/14/05 was not submitted; an office action from Chinese Patent Office dated 04/14/05 regarding Application No. 031575242 was submitted instead. In a telephone interview on 01/12/07, Applicant's representative Mr. M. Blackburn confirmed that the Chinese office action was the intended one. However, since the office action is in Chinese and no English translation was provided, it has not been considered.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claim 2 is rejected under 35 U.S.C. 102(a) as being anticipated by Wakao et al. (US 2002/0060736; see IDS).

Regarding claim 2, Wakao discloses

Art Unit: 2624

- Image pickup means for generating image data  
[Fig. 1, refs. 14 (image pickup means, which is part of ref. 10 of both Figs. 4 & 12) and 18; Fig. 4, ref. S401 (image data); P. 2, paragraph 42 and paragraph 43, lines 2-4 & last 3 lines; P. 3, paragraph 49, lines 1-3 (generating image data). Note that the image is compressed (e.g., by JPEG)]
- Inspection data generating means for, according to one of a first generation method and a second generation method, generating inspection data necessary to inspect whether the image data is modified or not  
[Fig. 4, refs. 10 (inspection data generating means) & S402 (generating primary verification, i.e., inspection, data); Figs. 5A & 5B (first and second inspection data generating methods); P. 3, paragraphs 50 and 51]
- wherein data indicating a generation method of the inspection data is added to the image data  
[Fig. 4, ref. S403 ("Specific ID" is the indicator); paragraphs 51, 60 & 62. Note that since the specific ID is used to determine the device that generates the verification (i.e., inspection) data and the generation method is associated with both the devices for the generation and the use of the data, the specific ID therefore necessarily indicates the generation method]

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamura et al. (US 5,764,286), and further in view of Marvel et al. ("Compression-Compatible Fragile and Semi-Fragile Tamper Detection," Proceedings of SPIE, Vol. 3971, 2000, pp. 131-139).

Regarding claim 1, Kawamura discloses

- Image pickup means for generating image data  
[Fig. 1, refs. 14-18 (collectively an image pickup means); Col. 2, lines 50-52]

Kawamura further discloses a means for recording image data [Fig. 1, refs. 22 & 24 (collectively an image recording means with compression being a recording method); Col. 2, lines 52-59; Col. 4, lines 53-54 (different compression, or recording, methods)].

Kawamura does not expressly disclose that the recording means also functions as an inspection data generating means for generating inspection data that changes the generation method according to the recording method for the image data. However, Marvel et al. discloses using different methods for generating different inspection data according to the recording method [P. 133, paragraph 4 (beginning with "We use") discloses a first inspection data generating method (the inspection data generating method been the method used to generate the H-bit message authentication code and the corresponding recording method being the Stego-Jpeg method) and P. 134, paragraphs 2 & 3 discloses a second method (the inspection data generating method been the method used to generate low-resolution version of the original image and the corresponding recording method being the combine SSIS/compression method shown in Fig. 1)].

Kawamura and Marvel are combinable because they both have aspects that are from the same field of endeavor of data compression.

Art Unit: 2624

At the time of the invention, it would have been obvious to one of ordinary skill in the to modify Kawamura with the teaching of Marvel by using a different inspection data (i.e., hidden data to be embedded) generating method when a different recording (i.e., embedding/compression) method is used. The motivation would have been, in addition to reducing data size, also to assure the integrity of the digital images (therefore the use of the hidden, or inspection, data), as well as to satisfy the different levels (fragile for the first method and semi-fragile for the second) of tamper-detection needs, as Marvel indicates in the first two paragraphs of Section 1; and the respective first paragraph of Sections 2 and 3].

Therefore it would have been obvious to combine Marvel with Kawamura to obtain the invention as specified in claim 1.

### ***Conclusion and Contact Information***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Wan (US 2004/0028049) – Discloses using different compression methods for different data type and in the case of ZLIB, uses a checksum for integrity check [P. 5, ¶ 68]
- Morris et al. (US 5,038,392) – discloses using different compression methods for different data type [Fig. 3b]

Art Unit: 2624

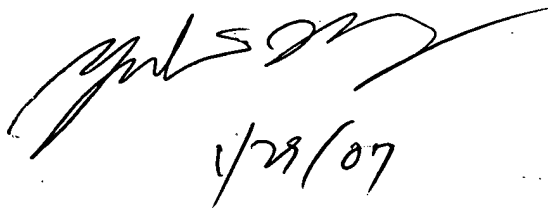
- Har et al. (US 6,320,521) – discloses using the CRC of the uncompressed image for integrity check [Col. 3, lines 48-55]
- Tadayon et al. (US 2003/0043852) – discloses using the average codeword length for integrity check for VLC [Fig. 2]
- Tanaka (US 6,728,466) – discloses using a checksum of compressed or uncompressed image for integrity check [Col. 10, lines 30-38]

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yubin Hung whose telephone number is (571) 272-7451. The examiner can normally be reached on 7:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew C. Bella can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2624

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



1/29/07

Yubin Hung  
Patent Examiner  
Art Unit 2624  
January 29, 2007